

HABITAT DEVELOPMENT FOR BOBWHITE QUAIL

IN THE TEXAS BLACKLANDS

BIOLOGY JOB SHEET TX-7

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SPACE- Bobwhites spend most of their lives within an area of 125 acres. Because they have such low mobility, their habitat needs must be provided in proximity to each other. Optimum bobwhite habitat can support fall populations in excess of one quail per acre. Fall coveys usually number 10-15 birds. With excellent habitat and favorable spring and summer weather, a landowner can expect a covey of bobwhites for every 15-30 acres of habitat prior to the hunting season.

WATER- Bobwhites normally do not need drinking water for survival in the Texas Blacklands. Their water needs are satisfied from succulence within their food and moisture (rain and dew) on the surface of their food. Bobwhites lose little water with their body wastes. Hatching success and chick survival may be increased where supplemental water is adequately provided during June, July and August of summers with below normal rainfall.

FOOD- The bobwhites' diet consists of about 15% animal matter, primarily insects, and 85% plant matter. Animal matter is particularly important to chicks and young birds, which need high protein food for growth. Plant matter is composed primarily of large, smooth, hard seeds. Forbs, commonly called "weeds," and legumes provide the bulk of these seed. Native sunflowers, partridge peas, Illinois bundleflower, crotons, snow-on-the-mountain, and western ragweed are excellent forbs and legumes for bobwhite food in the Texas Blacklands. Seeds of native grasses, such as Johnsongrass and switchgrass, are eaten by bobwhite. Kleingrass, an introduced species, produces seed readily eaten by quail and is adapted to the area.

COVER- Bobwhites require different cover types which must be located in proximity to each other and food plants if quail numbers are to be maximized.

Nesting- Bobwhites prefer clumps of perennial grasses, such as species of bluestems and kleingrass. A nesting site should be at least 8 inches tall and 12 inches in diameter. Many nesting sites should be provided to make nest location and destruction more difficult for nest predators (skunks, house cats, crows, etc.).

Loafing and Escape- Birds spend the day between morning and evening feeding periods near and under loafing cover that screens the birds from overhead predators and provides shade during the summer. This cover type is open underneath so birds can easily escape danger. Clumps of wild plum or Russian olive provide excellent loafing cover. Quail will also loaf in blackberry thickets, under low-growing grape vines, and in mottes of yaupon and skunkbush.

Travel and Feeding- Bobwhites move from one place to another primarily by walking. Vegetation should be thin enough to permit movement, yet provide concealment from ground predators and tall enough to provide overhead protection from avian predators. This cover type is deficient on heavily grazed pastures; but with proper grazing, a variety of plants provide travel and feeding cover.

Roosting- Bobwhites usually roost on south or southwest exposures where vegetation is low and sparse. Bare ground is sometimes used. This enables the birds, which roost in a circle with heads to the outside, to flush straight up when disturbed. Roosting cover is rarely deficient in the Texas Blacklands.